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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,791	08/31/2001	Paul Frederick Koeppe	05770-145001/AMSC-533 D-V	2308

26161 7590 10/08/2003

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EXAMINER

RJOS CUEVAS, ROBERTO JOSE

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,791

Applicant(s)

KOEPE ET AL.

Examiner

Roberto J Rios

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 13 is objected to because of the following informalities: it is unclear what applicant meant by: "recovery devices to transfer **and** reactive power..." in line 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1, 6, 12, 13 and 14, the limitation: "sufficient level and sufficient duration" render the claims unclear failing to clearly point out the metes and bounds of the claimed subject matter. Applicant is suggested to remove the word "sufficient" from the claims in order to overcome this rejection.

Claim 2 recites the limitation "the energy storage unit". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al (US patent 5,514,915).

As per claims 1 and 6, Kim et al (herein after Kim) teach a method for stabilizing a utility power network consisting of a voltage recovery device (20) for connection to said utility network (abstract), the voltage recovery device comprising an inverter (44; col. 65, line 65) electrically coupled to the distribution network (Figure 1) and configured to transfer, in response to a fault condition detected on the utility power network, reactive power (claim 2) between the distribution network and voltage recovery device at a level and for a duration to recover the voltage on the utility power network to within a predetermined proportion of the nominal voltage (col. 1, line 25). Kim discloses connecting the recovery device to a utility distribution network closer to a load side of the system. Utility distribution networks are inherently coupled to higher-voltage power transmission networks which are coupled to a power generation means.

As per claims 2 and 7, Kim teaches a controller (38) connected to the inverter and configured to control the amount of reactive power transferred between an energy-storage unit and the utility power network (col. 4, line 33).

As per claims 3 and 4, Kim teaches an energy storage interface (34) connected between the energy storage unit the inverter (Figure 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Amano et al (US patent 5,703,791).

As per claim 5, Kim teaches the energy-storage unit comprising a superconducting magnet but does not specifically disclose the energy storage unit selected from the group consisting of a flywheel , a battery, a compressed gas unit, a capacitive unit and a fuel cell. However, Amano et al (herein after Amano) teaches that a power stabilization system comprising a voltage recovery device could comprise an interchangeable energy storage unit selected from the group consisting of a flywheel , a battery, a capacitive unit and a SMES.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the energy storage unit of Kim with the teachings of Amano such that the energy storage unit is selected from the group consisting of a flywheel, a battery or a capacitive unit since they are equivalent energy storage means well known in the art.

8. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view Williams et al (US patent 5,422,561).

As per claims 8-11, Kim teaches the voltage recovery device transferring real or reactive power or a combination therefrom between the device and the distribution network but does not specifically disclose coupling at least a second voltage recovery device to the distribution network at a location remote from the first recovery device.

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However, Williams et al (herein after Williams) teach a method for stabilizing a utility power network, wherein a plurality of voltage recovery devices (16-19) is coupled to the distribution network remotely located from each other in order to stabilize the utility power network when a fault condition is detected (col. 7, line 48; col. 4, lines 41-60; col. 5, lines 27-45).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Kim with the teachings of Williams such that at least a second voltage recovery device is coupled to the distribution network at a location remote from the first recovery device for the purpose of stabilizing a utility power network.

As per claim 12, Kim teaches all the limitations except the controller implemented on a computer environment comprising a memory for storing computer-readable instructions and a processor for executing said instructions, wherein a bus connects the memory and the processor. However, Williams teaches the controller implemented on a computer environment (col. 8, line 5+). Moreover, the Examiner takes official notice that a computer is capable of accepting data and instructions, executing the instructions to process data and providing outputs based on said results, wherein a computer typically comprises processor means and memory means.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the controller of Kim with the controller of Williams such that a computer is used to control the voltage recovery device for the purpose of providing a programmable controller.

As per claims 13 and 14, Kim teaches all the limitations except connecting a plurality of voltage recovery devices to the distribution network, wherein said distribution network comprises a plurality of distribution networks. However, Williams teaches a method for stabilizing a utility power network, wherein a plurality of voltage recovery devices (16-19) is coupled to a plurality of distribution networks (Figure 1) to stabilize the utility power network when a fault condition is detected (col. 7, line 48; col. 4, lines 41-60; col. 5, lines 27-45).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Kim with the teachings of Williams such that a plurality of voltage recovery device are coupled to the distribution network for the purpose of stabilizing a utility power network.

As per claim 15, Kim teaches the voltage recovery device configured to provide real power (claim 2).

9. Art of general nature relating to power stabilizing systems has been cited for applicant's review.

Communication with PTO

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rios whose telephone number is (703) 306-5518. In the event that Examiner Rios cannot be reached, his supervisor, Brian Sircus may be contacted at (703) 308-3119. The fax number for Before-Final communications and After-Final communications is (703) 872-9306.



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